

Claims

What is claimed is:

1. A handheld, portable electronic computing and communication device comprising:
 - a a compact housing, a processor, read-only and random-access primary memory, optical and/or magnetic mass secondary storage mechanism, a large touch-sensitive primary LCD, an auxiliary LCD, a battery-backed random access memory module, game control buttons for intuitive two-handed operation, high-speed serial/audio-in/audio-out/DC-in interfaces, audio and video codecs, interfaces for a wireless data communication transceiver and external game controller, battery power supply and power management logic;
 - a a software operating system with a well-defined application programming interface (API), a web browser application, other software applications and personal information stored in non-volatile primary memory;
 - a a graphical user interface for accessing personal information, commanding the execution of software applications present in primary memory or secondary storage, and for configuring and controlling the device.
2. The device of claim 1, wherein
 - a when used as an audio player, the primary LCD and other unused electronics are shut down and the auxiliary LCD is used for displaying information pertaining to the audio being played;
 - a when in the "stand-by" mode, the primary LCD and other unused electronics are shut down and the auxiliary LCD is used for displaying notification messages pertaining to device status, incoming communication requests, presence of nearby users, etc.
3. The device of claim 1, wherein the operating system or a built-in software application
 - a allows users with the knowledge of a pre-configured password to set a numeric or textual access level value that is protected from modification by other users;
 - a when the execution of a software application contained in the optical or magnetic storage medium is attempted, reads rating information embedded in the medium or the application, maps it to an access level value, compares this value with the value stored in the device, and blocks the execution of the application if the comparison indicates an impermissible access level;
 - a records the identity of all the applications executed and the Universal Resource Locators (URL) of all the Internet sites accessed in non-volatile memory;

- a allows the recorded information to be viewed and removed only by users with the knowledge of a pre-configured password.

4. The device of claim 1, wherein wireless communication is used to

- a broadcast the pre-configured identity of the user periodically (if so desired by the user) in a uniquely recognizable message and receive similar messages broadcast by other instances of the devices so as to automatically discover the identities of other users within wireless range;
- a permit textual and audio communication between a pair of users who detect each other's presence automatically;
- a control a software application executing in the device by another instance of the application executing remotely;